

**DECLARATION AND POWER OF ATTORNEY  
UNDER 35 USC §371(c)(4) FOR  
PCT APPLICATION FOR UNITED STATES PATENT**

As a below named inventor, I hereby declare that:  
my residence, post office address and citizenship are as stated below under my name;

I verily believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought, namely the invention entitled: GAS-MIXTURE-IGNITION-TIME ESTIMATION APPARATUS FOR INTERNAL COMBUSTION ENGINE, AND CONTROL APPARATUS FOR INTERNAL COMBUSTION ENGINE described and claimed in international application number PCT/JP2005/006230 filed on March 24, 2005.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

Under Title 35, U.S. Code §119, the priority benefits of the following foreign application(s) filed by me or my legal representatives or assigns within one year prior to my international application are hereby claimed:

Japanese Patent Application No. 2004-86098 filed on March 24, 2004

The following application(s) for patent or inventor's certificate on this invention were filed in countries foreign to the United States of America either (a) more than one year prior to my international application, or (b) before the filing date of the above-named foreign priority application(s):

I hereby appoint the following as my attorneys of record with full power of substitution and revocation to prosecute this application and to transact all business in the Patent Office:

James A. Oliff, Reg. No. 27,075; William P. Berridge, Reg. No. 30,024;  
Kirk M. Hudson, Reg. No. 27,562; Thomas J. Pardini, Reg. No. 30,411;  
Edward P. Walker, Reg. No. 31,450; Robert A. Miller, Reg. No. 32,771;  
Mario A. Costantino, Reg. No. 33,565; Stephen J. Roe, Reg. No. 34,463;  
Joel S. Armstrong, Reg. No. 36,430; Christopher W. Brown, Reg. No. 38,025;  
Richard E. Rice, Reg. No. 31,560; and Paul Tsou, Reg. No. 37,956.

ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION SHOULD BE SENT TO OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VIRGINIA 22320, TELEPHONE (703) 836-6400.

I hereby declare that I have reviewed and understand the contents of this Declaration, and that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1	<b>Typewritten Full Name of Sole or First Inventor</b>	Shigeki Nakayama		
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Shigeki Nakayama</i>		
3	<b>Date of Signature:</b>	<i>June 19 2006</i>		
		Month	Day	Year
	<b>Residence:</b>	Susono-shi	Shizuoka-ken	Japan
		City	State or Province	Country
	<b>Citizenship:</b>	Japanese		
	<b>Post Office Address:</b>	c/o TOYOTA JIDOSHA KABUSHIKI KAISHA		
	(Insert complete mailing address, including country)	1, Toyota-cho, Toyota-shi, Aichi 471-8571 Japan		

**Note to Inventor:** Please sign name on line 2 exactly as it appears in line 1 and insert the actual date of signing on line 3.

**IF THERE IS MORE THAN ONE INVENTOR USE PAGE 2 AND PLACE AN "X" HERE** ☒  
(Discard this page in a sole inventor application)

1	<b>Typewritten Full Name of Joint Inventor</b>	Koji		Kitano
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Koji Kitano</i>		
3	<b>Date of Signature:</b>	June	19	2006
		Month	Day	Year
	<b>Residence:</b>	Susono-shi	Shizuoka-ken	Japan
		City	State or Province	Country
	<b>Citizenship:</b>	Japanese		
	<b>Post Office Address:</b> (Insert complete mailing address, including country)	c/o TOYOTA JIDOSHA KABUSHIKI KAISHA 1, Toyota-cho, Toyota-shi, Aichi 471-8571 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Taro		Aoyama
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Taro Aoyama</i>		
3	<b>Date of Signature:</b>	June 19	2006	
		Month	Day	Year
	<b>Residence:</b>	Susono-shi	Shizuoka-ken	Japan
		City	State or Province	Country
	<b>Citizenship:</b>	Japanese		
	<b>Post Office Address:</b> (Insert complete mailing address, including country)	c/o TOYOTA JIDOSHA KABUSHIKI KAISHA 1, Toyota-cho, Toyota-shi, Aichi 471-8571 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Ryo		Hasegawa
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Ryo Hasegawa</i>		
3	<b>Date of Signature:</b>	July	3rd	2006
		Month	Day	Year
	<b>Residence:</b>	Skyttelinjen Lund		Sweden
		City	State or Province	Country
	<b>Citizenship:</b>	Japanese		
	<b>Post Office Address:</b> (Insert complete mailing address, including country)	c/o TOYOTA JIDOSHA KABUSHIKI KAISHA 1, Toyota-cho, Toyota-shi, Aichi 471-8571 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Takashi		Koyama
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Takashi Koyama</i>		
3	<b>Date of Signature:</b>	June 19	2006	
		Month	Day	Year
	<b>Residence:</b>	Susono-shi	Shizuoka-ken	Japan
		City	State or Province	Country
	<b>Citizenship:</b>	Japanese		
	<b>Post Office Address:</b> (Insert complete mailing address, including country)	c/o TOYOTA JIDOSHA KABUSHIKI KAISHA 1, Toyota-cho, Toyota-shi, Aichi 471-8571 Japan		

**Note to Inventor:** Please sign name on line 2 exactly as it appears in line 1 and insert the actual date of signing on line 3.

This form may be executed only when attached to the first page of the Declaration and Power of Attorney of the application to which it pertains.

1	<b>Typewritten Full Name of Joint Inventor</b>	Kazuhisa		Inagaki
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Kazuhisa</i>		<i>Inagaki</i>
3	<b>Date of Signature:</b>	<i>July</i>	<i>17</i>	<i>2006</i>
		Month	Day	Year
	Residence:	Komaki-shi	Aichi-ken	Japan
		City	State or Province	Country
	Citizenship:	Japanese		
	Post Office Address: (Insert complete mailing address, including country)	c/o KABUSHIKI KAISHA TOYOTA CHUO KENKYUSHO 41-1, Aza Yokomichi, Oaza Nagakute, Nagakute-cho, Aichi-gun, Aichi-ken, 480-1192 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Yoshifumi		Wakisaka
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Yoshifumi</i>		<i>Wakisaka</i>
3	<b>Date of Signature:</b>	<i>July</i>	<i>17</i>	<i>2006</i>
		Month	Day	Year
	Residence:	Aichi-gun	Aichi-ken	Japan
		City	State or Province	Country
	Citizenship:	Japanese		
	Post Office Address: (Insert complete mailing address, including country)	c/o KABUSHIKI KAISHA TOYOTA CHUO KENKYUSHO 41-1, Aza Yokomichi, Oaza Nagakute, Nagakute-cho, Aichi-gun, Aichi-ken, 480-1192 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Matsuei		Ueda
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Matsuei</i>		<i>Ueda</i>
3	<b>Date of Signature:</b>	<i>July</i>	<i>17</i>	<i>2006</i>
		Month	Day	Year
	Residence:	Nisshin-shi	Aichi-ken	Japan
		City	State or Province	Country
	Citizenship:	Japanese		
	Post Office Address: (Insert complete mailing address, including country)	c/o KABUSHIKI KAISHA TOYOTA CHUO KENKYUSHO 41-1, Aza Yokomichi, Oaza Nagakute, Nagakute-cho, Aichi-gun, Aichi-ken, 480-1192 Japan		

1	<b>Typewritten Full Name of Joint Inventor</b>	Kiyomi		Nakakita
		Given Name	Middle Initial	Family Name
2	<b>Inventor's Signature:</b>	<i>Kiyomi</i>		<i>Nakakita</i>
3	<b>Date of Signature:</b>	<i>July</i>	<i>18</i>	<i>2006</i>
		Month	Day	Year
	Residence:	Nishikamo-gun	Aichi-ken	Japan
		City	State or Province	Country
	Citizenship:	Japanese		
	Post Office Address: (Insert complete mailing address, including country)	c/o KABUSHIKI KAISHA TOYOTA CHUO KENKYUSHO 41-1, Aza Yokomichi, Oaza Nagakute, Nagakute-cho, Aichi-gun, Aichi-ken, 480-1192 Japan		

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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**DESIGNATION OF TEN ATTORNEYS  
FOR POWER OF ATTORNEY**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

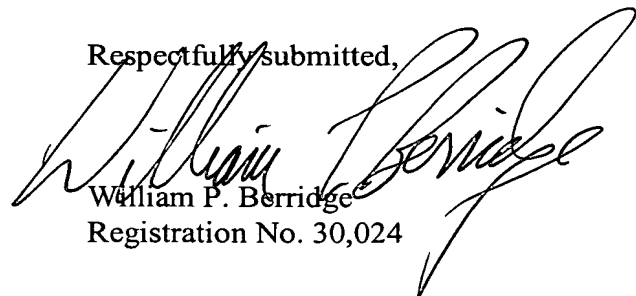
Sir:

This serves as a separate paper in compliance with 37 CFR §1.32(b) indicating that the following ten or fewer patent practitioners named in the attached power of attorney are to be recognized by the Patent Office as being of record in the application to which the attached power of attorney is directed:

**James A. Oliff, Reg. No. 27,075; William P. Berridge, Reg. No. 30,024;  
Kirk M. Hudson, Reg. No. 27,562; Thomas J. Pardini, Reg. No. 30,411;  
Edward P. Walker, Reg. No. 31,450; Mario A. Costantino, Reg. No. 33,565;  
Joel S. Armstrong, Reg. No. 36,430; Christopher W. Brown, Reg. No. 38,025;  
Richard E. Rice, Reg. No. 31,560; Paul Tsou, Reg. No. 37,956.**

**ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION  
SHOULD BE SENT TO OLIFF & BERRIDGE, PLC, CUSTOMER NO. 25944,  
TELEPHONE (703) 836-6400.**

Respectfully submitted,



William P. Berridge  
Registration No. 30,024

WPB/nxy

Date: July 31, 2006